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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,302	07/03/2003	Andreas Kaupert	(E) 1840 US	8262

7590 08/10/2005
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Albuquerque, NM 87111

EXAMINER

PATEL, VINIT H

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/614,302

Applicant(s)

KAUPERT ET AL.

Examiner

Vinit H. Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10Oct03; 15Apr04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Objections

1. Claim 4 is objected to because of the following informalities: the use of “—” to separate phrases in the claim is not proper punctuation. It is suggested that commas “,” are utilized. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10, 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Blaschke et al., US Pat. Appl. No. 2003/0027090.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1, Blaschke teaches an evaporator arrangement, particularly for the production of a hydrocarbon/mixing material mixture which can be decomposed for

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hydrogen recovery in a reformer, including a porous evaporator medium (34), a hydrocarbon supply duct arrangement (54) for supplying hydrocarbon to the porous evaporator medium (34), and also a mixing material conducting arrangement [0055-0056] for conducting through the evaporator medium (34) at least a portion of the mixing material provided for mixture formation (Figs. 1 & 2).

Regarding claim 2, Blaschke teaches the evaporator arrangement according to claim 1, wherein the evaporator medium (34) has numerous mixing material passage apertures [0055-0056] (Figs. 1 & 2).

Regarding claim 3, Blaschke teaches the evaporator arrangement according to claim 1, wherein an electrically operable heating device (72) is associated with the evaporator medium (34) [0059-0060] (Figs 1 & 2).

Regarding claim 4, Blaschke teaches the evaporator arrangement according to claim 3, wherein the heating device [0061] is arranged--in relation to the flow of mixing material through the evaporator medium (34)--on an upstream side of the evaporator medium (34) (Figs 1 & 2).

Regarding claim 5, Blaschke teaches the evaporator arrangement according to claim 4, wherein the heating device (72) has associated with it a screening arrangement to screen it off from the mixing material flowing to the evaporator medium [0056-0062] (Figs 1 & 2).

Regarding claim 6, Blaschke teaches the evaporator according to claim 5, wherein the screening arrangement includes a screening plate having mixing material passage apertures [0056-0057].

Regarding claim 7, Blaschke teaches the evaporator arrangement according to claim 3, wherein the heating device [0061] has a heating element (72) which runs at least locally curved or spirally (Figs. 1 & 2).

Regarding claim 8, Blaschke teaches the evaporator arrangement according to claim 7, wherein the evaporator medium (34) is at least partially arranged in a spatial region surrounded by the heating element (72) (Figs. 1 & 2).

Regarding claim 9, Blaschke teaches the evaporator arrangement according to claim 1, wherein an electrically operable mixing material heating device [0056-0062] is provided in an upstream region in relation to the through-flow of the mixing material through the evaporator medium (34) of the mixing material conducting arrangement and spaced apart from the evaporator medium (34) [0056-0062] (Figs 1 & 2).

Regarding claim 10, Blaschke teaches the evaporator arrangement according to claim 1, wherein a mixing/combustion chamber (52) is provided downstream of the evaporator medium (34) with respect to the flow of mixing material through the evaporator medium (34), and the mixture introduced into the said chamber (52) can be ignited therein by means of an ignition member [0053-0062] (Figs 1 & 2).

Regarding claim 14, Blaschke teaches the heating device comprising an evaporator arrangement according to claim 1 [0052-0062].

Regarding claim 15, Blaschke teaches the exhaust gas purification system, including an evaporator arrangement according to claim 1 [0052, 0085].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-13 are rejected under 35 U.S.C. 103(a) as being obvious over
Blaschke et al., US Pat. Appl. No. 2003/0027090..

The applied reference has a common inventor with the instant application.
Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Regarding claim 11, Blaschke teaches all of the limitations as applied to claim 1

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above, but does not teach the evaporator having a heat exchanger arrangement.

However, it would have been obvious to one of ordinary skill in the art for knowledge generally available to one of ordinary skill in the art at the time of the invention to modify Blaschke to include a heat exchanger for the purpose removing and using heat created in the evaporator. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Regarding claims 12 and 13, Blaschke teaches all of the limitations as applied to claim 1 above and the mixing material comprises air [0055], but does not teach the evaporator having a reformer for the recovery of hydrogen from a hydrocarbon/mixing material mixture, comprising an evaporator arrangement. However it would have been obvious to one of ordinary skill in the art for knowledge generally available to one of ordinary skill in the art at the time of the invention to modify Blaschke to include the evaporator arrangement with a reformer for the purpose to utilize an evaporator with increased evaporation capability [0009]. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Furthermore, the material worked upon (air) does not distinguish the claim from the prior art. See MPEP 2115.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinit H. Patel whose telephone number is (571) 272-0856. The examiner can normally be reached on 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


VHP


Glenn Caldarola
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